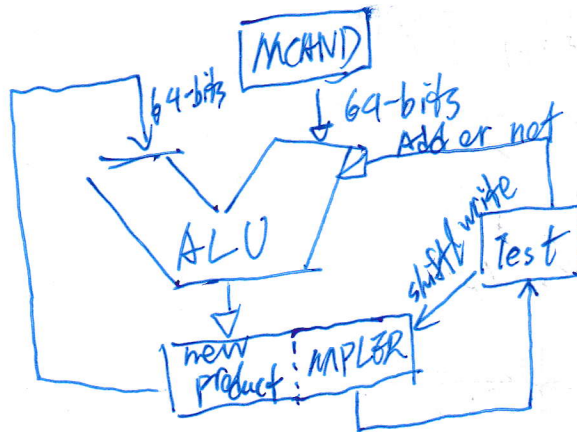
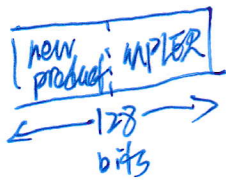


HW6. Q 2

64-bits adder



64 runs

$$\begin{array}{r}
 10000 \text{ --- } 0000 \text{ 64 bits} \\
 \times 1000 \text{ --- } 0101 \text{ 64 bits} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1000 \text{ --- } 0000 \\
 \times 1000 \text{ --- } 010 \text{ 3-bits} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 + 1000 \text{ --- } 0000 \text{ 64-bits} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1000 \text{ --- } 0000 \\
 \times 1000 \text{ --- } 010 \text{ 62-bits} \rightarrow \text{shift right} \\
 \hline
 1000 \text{ --- } 0000 \\
 + 0000 \text{ --- } 0000 \rightarrow 65\text{-bits} \\
 \hline
 \end{array}$$

shift left

Sum should be 128 bits